At-Home Hormone Compounding for Gender Affirming Treatment

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Introduction

We are writing from the beautiful state of Florida, a gorgeous place filled with wetlands, beaches, prairies, and more. It is also a place where politicians are doing everything in their power to prevent trans people from obtaining gender affirming care. It is estimated that with the current batch of laws in Florida, about 80% of trans people have been cut off from care or experienced care interruptions[1[1]]. To prevent catastrophic health outcomes, up to and including death, it is vital to provide a continuation of medical care for the trans community. If you feel apprehensive about the safety or efficacy of do-it-yourself hormone replacement therapy (HRT), I hope this guide can provide you with some peace of mind.

The goal of this guide is to provide a comprehensive and easy-to understand manual to empower individuals and communities to begin their own hormone compounding operation. This guide is written for laypeople, not medical professionals or lab professionals. The authors consist of both lab professionals and laypeople. The intended setting for this work is within your own home, not within a medical laboratory, and as such, the materials are something you can find easily in your community.

This guide has undergone some revisions and edits from our first version, and we hope to continue to update and refine it based on feedback and questions supplied by people who are doing this work. Whether you use our process or another, we want to learn and hear from you. Our work was not invented out of thin air but was built upon the shoulders of those who have been working on DIY compounding for many years. We would like to particularly thank Noire Labs for their guide, as well as Lena's guide and the Titty Comittee for their work.

This guide is not meant to be a one-stop-shop for how to DIY your entire transition. We have added some information on injecting, but we still recommend you find your ideal dosing regimen by utilizing Transfem Science (estrogen only) and diyhrt.wiki (estrogen and testosterone) and by talking to other people pursuing at-home transition. Lab tests can be obtained (for a price) without prescriptions within Florida and many other states. There are at-home tests you can order online or even find at your local pharmacy and send off to get your results.

However, your community is your greatest resource. For generations, trans people have been pursuing our transitions with or without medical assistance. Lean into your people, ask questions, and reach out for advice. This guide is geared towards community care, not just doing everything by yourself.

THIS GUIDE DOES NOT PROVIDE MEDICAL ADVICE

The information, including but not limited to, text, graphics, images and other material contained in this publication, is for informational purposes only. No material in this zine is intended to be a substitute for professional medical advice, diagnosis or treatment. Always seek the advice of your physician or other qualified health care provider with any questions you may have regarding a medical condition or treatment and before undertaking a new health care regimen, and never disregard professional medical advice or delay in seeking it because of something you have read in this zine.

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[1] Reed, E. (2023, May 11). Trans patients being dropped as Florida law bans "Up to 80%" of adult gender affirming care. Erin In The Morning. https://www.erininthemorning.com/p/trans-patients-being-dropped-as-florida

Materials:

Vials, Caps and Stoppers – these can be purchased off eBay. You want 10 mL vials with a separate stopper and a metal cap that can be crimped onto the vial. The plastic cap on these vials can be removed without taking off the cap or the stopper, allowing the vial to be drawn from multiple times. Without this system, the vial would only be single use, which does not work for our method.

Image 1: A glass vial with a stopper and metal cap with a blue plastic top. The stopper goes on top of the vial and then the metal cap goes on top and is crimped around the lip.

Syringes in 1 mL and 10 mL for measuring – syringes are easy to use, relatively cheap, and accurate at measuring. You will need some form of volumetric measuring system, and while pipettes are easier to use, they do require knowledge on how to use them correctly and are more expensive. Using syringes for measuring liquids is safe and accurate. A 1mL syringe is usually accurate to 0.1 mL and a 10 mL syringe is usually accurate to .2 mL. You do not need to get a specific type of syringe for this, an injection (Luer lock) syringe, oral syringe, and even catheter-tip syringe would all work. What is most important is how accurate they are, how much liquid they can hold, and ability to effectively measure the liquid. Keep in mind the depth of the container you are drawing from and how wide the opening is to draw from. If the bottle of MCT oil, for example, is long and narrow, can your syringe reach the liquid, or will it need to be poured into a secondary storage container for easier access?

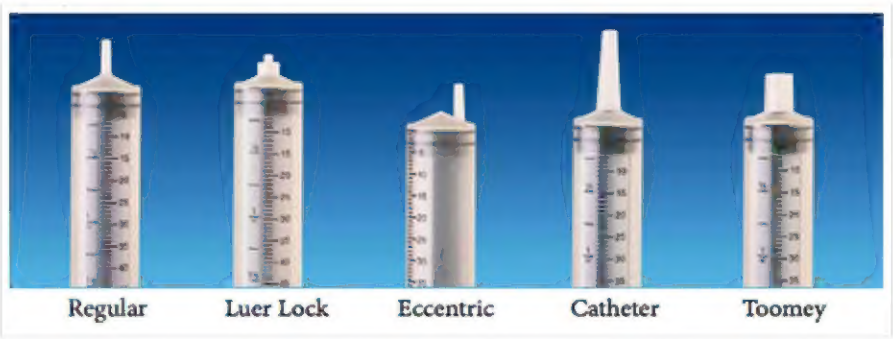

Image 2: The different types of syringe tips are shown here. All can effectively measure volumes, so do not worry about trying to find a specific tip. The most important thing to look for is the accuracy. What are the graduations and how many decimal points is it accurate to?

Image 3: Image shows a 1 mL catheter tip syringe. The syringe has labeled graduations in intervals of .1 mL, with .02 mL intervals between those labels. This means the syringe is accurate to .01 mL, which is even higher than the accuracy of .1 mL, which is the minimum of what we need.

Milligram scale – You will need a scale that is accurate down to .1 grams, or one milligram. A kitchen scale that is only accurate to one gram is not accurate enough! These milligram scales are around $20-$30 on amazon, and you can also find them in smoke shops/head shops locally.

Tin foil – for the most shoestring budget process, tin foil can be shaped into a weigh boat to use on your scale, into a funnel to put into your vials, and many other purposes. While specialized equipment will perform all these functions more effectively, for budgetary constraints, tin foil will work.

Pressure cooker – This is going to be the biggest investment after the raw hormone powder, and it is not optional. You need a pressure cooker. Let me repeat that: **you need a pressure cooker**. This liquid is going to be injected straight into your muscles, and it needs to be absolutely sterile. Your vials must be sterilized at 121°C, which can only be obtained in an autoclave or a pressure cooker. A manual pressure cooker is actually preferable to an electric one because you can actually get to 15 psi, which is the minimum needed for true steam sterilization. An electric pressure cooker usually only gets up to around 11 psi. In a study published in PLoS One in 2018, Instant Pot pressure cookers were able to sterilize effectively and were determined to be an appropriate substitute for autoclaves in laboratories that could not afford an autoclave [2[2]]. If using the lower-pressure electric pressure cooker, ensure you sterilize for at least 1 hour to compensate.

Something to crimp the vial caps, such as the back of a spoon – A vial crimper will do this far easier and more effectively, but for an absolute shoestring budget, you can crimp the sides of the metal cap around the vial using the back of the spoon. If this is something you are doing primarily for yourself and a friend

[2] Swenson VA, Stacy AD, Gaylor MO, et al. Assessment and verification of commercially available pressure cookers for laboratory sterilization. PLoS One. 2018;13(12):e0208769. Published 2018 Dec 11. doi:10.1371/journal.pone.0208769

or two, a spoon is incredibly annoying to use, but it will work. If you are doing any sort of compounding at scale, we would **highly recommend** a crimper. You can often buy vials, stopped, caps, and crimpers in a set.

PPE – you will absolutely need gloves and masks for this process for safety. Do not skimp on this. You do not need sterile gloves; just regular nitrile examination gloves will work fine. As for masks, regular surgical masks are sufficient, though if you have KN95s lying around, those will work even better.

Cleaning supplies – you will need three spray bottles; one with a 10% household bleach solution, one with just plain tap water, and one with 70% ethanol or isopropyl alcohol, which is sold in stores as rubbing alcohol. This is how you will clean your work surfaces. This three-step process is good at disinfecting surfaces from a wide variety of microorganisms. You may remember that bleach and alcohol, when combined, make chloroform. This is true and is why we have a spray bottle of water. We will go over this three-step process in more detail later, but the broad overview is that you first spray the surface with the bleach solution and let it sit for about sixty seconds and then wipe it off, then spray with water and wipe off the water, removing any bleach residue. Finally, spray with 70% ethanol and let sit for around five minutes and then wipe down. This will prevent bleach and alcohol from coming into contact, while still getting the effects of both.

<u>Optional equipment:</u>

An actual crimper – this will make your life so much easier, trust me. However, it is an extra $30-$50.

Volumetric pipettes and pipette pumps – this will make drawing up accurate liquid measurements much easier, with you being able to see the liquid as it comes up and make micro-adjustments without having to remove the pipette from the container. However, using a pipette requires a certain amount of technical knowledge to hold it level, manipulate the pump, and read the measurements. It also costs a bit more than just a pack of syringes. It is a good investment to make if you intend on making large batches. For just making a couple of vials for yourself or a handful of friends, the syringes should be fine. In our process, we utilize pipette measuring for the carrier oil and the benzyl benzoate, while drawing the benzyl alcohol with a syringe, as it is usually sold in small, stoppered vials. We use disposable, individually wrapped, serological pipettes, as this is simply easier than trying to clean a glass pipette in a home setting.

Weigh boats and weighing paper – this will be a lot less finicky than trying to manipulate tinfoil, but it isn't mandatory. A weigh boat will keep the powder contained and provide an easier time of getting an accurate measurement. Weigh paper can also be used to hold the powder for measurement and can also be folded in half to form a makeshift funnel for easy transfer into the vials.

Hot plate with magnetic stir guide – this is only needed if you would like to use the volumetric method spelled out in part two of this guide. This will help heat the liquid while simultaneously stirring it at a consistent rate, making a nice homogenous mixture. You could also just get a hot plate and stir the liquid yourself, but plenty of lab hot plates come standard with the magnetic stirring attachment. If you're already buying a hotplate, just get one with a stirring attachment.

Glassware – for the volumetric method, you will want glassware to measure larger quantities of liquid ingredients, as well as a beaker to place on the hot plate to hold the mixture as it is heated and mixed.

Image 4: A hot plate with magnetic stirrer function is shown with a 800 ml beaker filled with an unidentified orange liquid being stirred through the use of a magnetic stir bar placed within the liquid. The stirring action forms a vortex.

Consumable Supplies:

MCT Oil, or some form of carrier oil – this is used to dissolve the estrogen powder into a liquid form, allowing for a known dose to be administered either intramuscularly or subcutaneously. MCT oil is cheap and well tolerated with a lower viscosity, which makes for easy drawing with needles. When purchasing MCT oil, ensure it is **not** labelled as "C6 MCT oil" or "C8 MCT oil," you want to find MCT oil that is made of a mixture of multiple triglyceride lengths. Castor oil is the common carrier oil found in prescribed vials. It can extend the shelf life and is also easy to get, but it is more viscous and can cause allergic reactions. Ensure whatever carrier oil you get is pure with no additives! MCT oil should be clear and odorless, castor oil should have a slight yellow tint.

Benzyl Alcohol – this is a preservative used to extend the shelf-life of the vials and prevent any sort of harmful bacterial growth. This preservative is very well tolerated, with minor reactions (0.3%) being found only in dermatitis patients[3].

Benzyl Benzoate – this is used to increase solubility and even distribution of the estrogen powder within the solution. It has been known to cause allergic reactions and is considered optional in this process. If you wish to not use benzyl benzoate, simply replace it with more carrier oil. If you do not use benzyl benzoate, be sure to gently agitate the vials before injection, to be extra sure the distribution of estrogen is even throughout the solution.

Estradiol Enanthate - this is the preferred ester for this process (and for most homebrew processes you'll find) due to it having a stark melting point indicator (more on this shortly) and being less erratic or "peaky" with levels than other esters, but, if needed or desired, substitute this 1:1 with valerate or cypionate. This will need to be sourced from online vendors. Diyhrt.wiki has a list of vendors for raw powders and is a trusted resource.

"How do I know my estrogen is really estrogen?"

Estradiol is very cheap; it is exceedingly unlikely to be cut with anything. Despite this, you should do the following tests for peace of mind and to ensure the safety and reliability of your vials:

- Melting point: estrogen enanthate melts between 94-96°C. This is particularly low for a solid, making it a good indicator that the powder is estrogen enanthate.
- Solubility: estrogen enanthate will not dissolve in water but will remain clumped up. However, in oil or alcohol, it will be possible to dissolve it.

If your powder exhibits both the appropriate melting point and is insoluble in water, you can be confident you are working with genuine estrogen enanthate powder. You can send powder off to get lab tested for purity, but it is expensive and may not be the safest for operational security (OPSEC) reasons. That being said, do your own risk analysis and make the choice you feel is best for your situation.

Minimal equipment setup:

- Manual pressure cooker: $60-$120
- Milligram scale: $20-$30
- Cleaning supplies: $20-$30
- Crimper: spoon, free
- Vials, caps, stoppers: $35-$50
- Measuring syringes: $15-$25
- Injection syringes: $15-$25
- PPE, gloves and masks: $20-$30

Total: $185 to $310

Recommended equipment setup:

- Manual pressure cooker: $60-$120
- Milligram scale: $20-$30
- Cleaning supplies: $20-$30
- Crimper: $50-$60
- Vials, caps, stoppers: $35-$50
- Measuring syringes: $15-$25
- Injection syringes: $15-$25
- Pipette Pump: $10
- 10 ml pipettes: $15-$50
- PPE, gloves and masks: $20-$30

Total: $260 to $430

Volumetric equipment:

- Hot plate with magnetic stirrer: $50-$150
- Beakers: $20-$50
- Graduated cylinders: $20-$50
- Magnetic stir bars: $15

Total: $105 to $265

Consumables:

- MCT Oil: we find a 16 oz or about 455 ml bottle goes for around $20, which can make you around 40-45 vials.
- Benzyl alcohol: around $10 for a 20 ml vial, enough for 100 vials
- Benzyl benzoate: around $25 for a 500 ml bottle, which is enough for about 120 vials.
- Estradiol enanthate: the cost depends on where you get it, but currently our supplier sells a gram for about $5. For 50 vials, you will need 20 grams, which would set you back around $100, with shipping bringing it up to about $150. This is your biggest up-front cost, but $150 will get you enough powder to make about 50 vials. With each vial lasting about 10 months, that means you have over 40 years of hormones! While the vials don't have that long of a shelf life, about a year, the powder itself can last decades if stored in a cool, dry, dark place.

Step-by-step Method for Individual Vials

This makes a 10 ml vial with 400 mg of estrogen, for a dose of 40 mg of estrogen per ml. You can scale it up or down if you want a different concentration. This is the most standard concentration.

- Rinse out the vials with isopropyl/rubbing alcohol to remove any dust or particulates and then **let the vial dry completely**. If the vial is not completely dry, the vial will turn cloudy – it is not safe to inject and you will need to throw it out. If you are limited on time, place the wet vials in a low-temperature oven (170-200 degrees F) for 20-30 minutes to make sure they are bone dry.
- Measure .4 grams, or 400 mg of estrogen powder and put into vial. You may want to use a funnel or some other tactic to ensure the powder goes into the vial instead of all over the place. The powder will get everywhere. Clean your workspace regularly.
- Measure 5.4 ml of MCT oil or castor oil and put it in the vial.
- Measure 4 ml of benzyl benzoate (optional, can replace with more carrier oil) and put into the vial.
- Measure 0.2 ml of benzyl alcohol and put into vial.
- Place the stopper in the vial and then place the metal cap onto it. Use the crimper or a spoon to push the edges of the metal cap around the lip of the vial.
- Sterilize vial(s) for 60 minutes in a pressure cooker. The pressure cooker must have water in it (that's where the steam comes from), however, the vials should not make direct contact with the water or the metal bottom of the pressure cooker, or there is a risk of the glass shattering. Using a trivet, which can be reinforced with tinfoil to prevent the vials from falling through the gaps, situate the vials on top of the trivet. You can jerry-rig a trivet using tinfoil – all it needs to do is keep the vials off the metal bottom of the pressure cooker so they don't explode. The vials can be on their side if need be. The water should reach just under the bottom of the trivet, but not going over it.
- Label your vials with the date they were made, how much estrogen is in it (for example, 400 mg in 10 ml, or 40mg/1ml), and potentially what batch number, some indicator of who made it, instructions for injecting, or whatever else you feel is appropriate. At the very least, date the vial and indicate what is in it and in what quantities.

Image 5: an uncapped vial is shown on the left, with the stopper positioned above it and the metal cap positioned above the stopper. The image on the right shows the stopper inserted into the vial with the metal cap crimped around the lip to hold the stopper in place. The blue plastic cap can be popped off, to allow for drawing from the vial, while keeping the self-sealing stopper in place.

Step by step for volumetric method

This recipe makes ten 10 ml vials with 400 mg of estrogen, for a dose of 40 mg of estrogen per ml.

This recipe can be halved, doubled, tripled, etc. in order to make more or less vials. You can adjust the amount of estrogen to change the concentration of the vials, but this is the most standard dose.

- Rinse out the vials with isopropyl/rubbing alcohol to remove any dust or particulates and then **let the vial dry completely.** If the vial is not completely dry, the vial will turn cloudy – it is not safe to inject and you will need to throw it out. If you are limited on time, place the wet vials in a low-temperature oven (170-200 degrees F) for 20-30 minutes to make sure they are bone dry.
- Measure 4 grams of estrogen and place it into a laboratory-grade glass beaker.
    - A 200 ml beaker should be the right size, though you may need to size up or down depending on if you halve or double this recipe.
    - This beaker needs to be able to withstand high heats without fracturing, so ensure you buy a borosilicate glass beaker.
- Measure 54ml of MCT oil or castor oil and put it in the beaker.
- Measure 40 ml of the benzyl benzoate (optional, can replace with more carrier oil) and put it in beaker.
- Measure 2 ml of benzyl alcohol and put it into the beaker.
- Place the beaker on a hot plate and mix with heat on until the mixture is entirely dissolved and homogenous. Ensure that you mix steadily and calmly, you do not want the mixture to splash around.
- Allow the mixture to cool and then use a pipette or syringe to take 10 mL of the mixture and place into a vial.
- Place the stopper in the vial and then place the metal cap onto it. Use the crimper or a spoon to push the edges of the metal cap around the lip of the vial.
- Sterilize vials for 60 minutes in a pressure cooker.
    - The pressure cooker must have water in it (that's where the steam comes from), however, the vials should not make direct contact with the water or the metal bottom of the pressure cooker, or there is a risk of the glass shattering.
    - Using a trivet, which can be reinforced with tinfoil to prevent the vials from falling through the gaps, situate the vials on top of the trivet. You can jerry-rig a trivet using tinfoil – all it needs to do is keep the vials off the metal bottom of the pressure cooker so they don't explode.
    - The vials can be on their side if need be. The water should reach just under the bottom of the trivet, but not going over it.
- Label your vials with the date they were made, how much estrogen is in it (for example, 400 mg in 10 ml, or 40mg/1ml), and potentially a batch number, some indicator of who made it, instructions for injecting, or whatever else you feel is appropriate. At the very least, date the vial and indicate what is in it and in what quantities.

Laboratory Techniques

While the amount of skill needed to successfully compound vials is relatively low, there are still some vital techniques when operating in a lab setting. They can be divided into two categories: safety and accuracy.

You should know how to properly put on and take off PPE, as well as what PPE to use in which circumstances. For this process, **gloves and masks are sufficient**. You should also keep your hair pulled back securely. You should shower and wash your hands before beginning this process. Your clothes should be clean and not include anything that could fall in the vials, such as glitter or feathers. You can use a lab coat if you have one, but a clean t-shirt and clean jeans is more than enough for our purposes.

When in a lab, pipettes and syringes (or anything that is used to draw up or hold a substance) can be reused, but only for the same substance. You can draw up your MCT oil multiple times in one syringe, but you should not place that syringe into your benzyl alcohol. Why? You will contaminate the benzyl alcohol with your carrier oil. This can reduce the efficacy, and for some chemical combinations, create dangerous chemical reactions. Take care to keep your chemicals separate from each other! Clean your space as you go. Cross-contamination can be dangerous, both for you and for whoever uses your vials!

Pressure cookers are potentially dangerous devices. The pressure that builds within them can create an explosion if things go wrong. This can be extremely dangerous and potentially fatal! When operating a pressure cooker, do not leave it unattended and read the instruction manual thoroughly. Operate your pressure cooker according to the manual or manufacturer's instructions.

Cleanliness is key! When you inject something into your body, it bypasses all of your body's mucus membranes that act as the first line of defense against harmful diseases trying to enter your body. Sticking something into your muscles gives it unfettered access to your entire body, which can be incredibly dangerous if it is contaminated. Ensure you use the three-step decontamination process as described in the earlier section and clean your space when anything spills. If something gets into a vial, the seal breaks, the vial cracks: throw it out! You cannot successfully transition if you're in the hospital with a blood infection!

If your room has a fan, turn it off; if it has a vent, close it. Airflow allows particulates to travel and settle, even if you cannot see them. You do not want to have windows open or fans running, as the powder can be picked up by light currents and travel around or be inhaled. In addition, make sure the room you are working in has been cleaned. Sweep and mop the floor, dust and clean the countertops (in addition to decontamination) and remove any clutter or mess. Reducing the chances of any contaminants entering your vials is vital!

When measuring liquids, you measure at the lowest point of the meniscus. What is a meniscus? Well, liquids, due to various properties, have a tendency to "creep" up the sides of pipettes and graduated cylinders (the plunger in syringes prevents the meniscus from forming and keeps the liquid flat). This can make it confusing when figuring out if you are measuring the right amount or going over it. Luckily, every liquid is the same: you always measure at the lowest point in the meniscus (except mercury, but you really shouldn't be working with mercury anyways). Ensure your pipette is level and at eye level when measuring, if it is tilted it can skew your measurement.

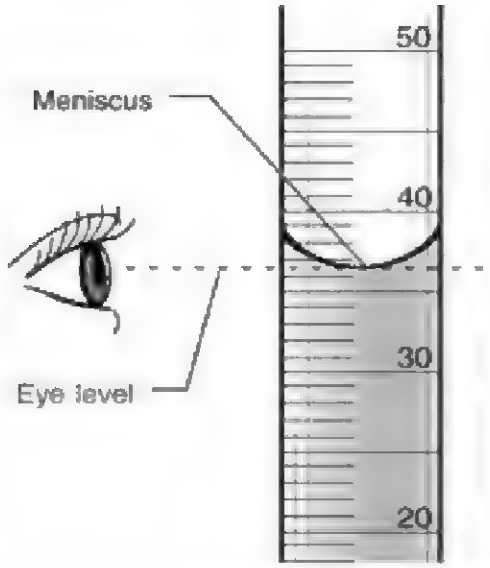

Image 6: a drawing of a graduated cylinder is shown with a liquid within it forming a concave meniscus. A dotted line crosses the bottom of the meniscus, showing the location where the measurement should be taken.

When weighing out the powder, ensure you tare out the scale to zero with the weigh boat or weigh paper on top of it. By placing your weigh boat on the scale when you tare it out, you ensure that the weight of it does not skew the weight of the estrogen powder you are trying to measure.

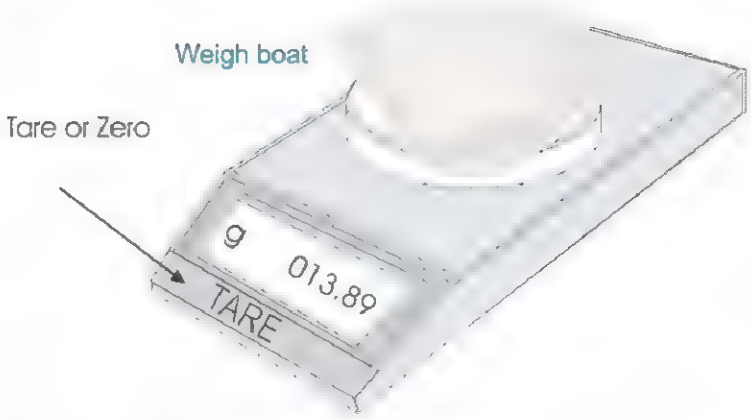

Image 7: A drawing of a scale is shown with a weigh boat on the scale. An arrow is pointing at the tare button. When you tare a scale with a weigh boat (or any object on it) it will only weigh what goes above the weight of the weigh boat, ensuring when you measure out .4 grams of powder, you are really getting .4 grams of powder, and that your weigh boat or weigh paper is not skewing your numbers.

Injections: Unpleasant but Necessary

For many people, the prospect of injecting is a frightening and daunting task. However, injections are, frankly, the best way to transition. For feminizing transition, there are topical, oral, and injection-based options. Oral and topical are not (usually) able to achieve estrogen levels that allow for "monotherapy" transition, which is to say, you will need to use testosterone blockers in combination with oral or topical estrogen in order to reach the levels most people want. At high enough estrogen levels, your testosterone levels will naturally be suppressed. Without these high levels, you will need to take something like spironolactone or bicalutamide. These testosterone blockers are notable for having lots of unpleasant side effects, from sexual disfunction to urinary incontinence. Do your research!

For those utilizing testosterone to transition, oral is not an option, only injection or topical. For both testosterone and estrogen: injection is going to be the best option for most people. For those with health issues that prevent the use of injection medications, we are working on oral and topical routes for release in a later version of this guide.

Now, enough trying to sell you on the necessity of becoming comfortable with injecting; let's get into how to do it! Your necessary supplies are as follows: **a 1 ml luer-slip or luer-lock syringe (a 3ml syringe will work, but will be harder to get an accurate dose, as our doses are small), a drawing needle (between 20-22 gauge), and an injection needle (between 25-30 gauge for subcutaneous and between 23-25 gauge for intramuscular)**. Subcutaneous needles will be shorter and thinner while intramuscular needles will be longer and thicker. With larger thighs, consider getting longer needles in order to actually get to the muscle. Note: you can inject either intramuscularly or subcutaneously, neither is better than the other. Some people who are sensitive to benzyl alcohol find that subcutaneous can cause a minor skin reaction that doesn't happen when injecting intramuscularly.

Image 8: two syringes are shown. One is labeled "Luer Slip: Slide 'n Fit" and has a smooth end. The other is labeled "Luer Lock: Twist 'n Seal" and has grooves that allow for the needle to be twisted onto the syringe.

Image 9: three needles are shown. The thickest is a 20-gauge needle that is colored pink, used for drawing from the vial. The next needle is 21-gauge and longer – this could be used for intramuscular injections. The final needle is 25-gauge and short – best for subcutaneous injections.

First, rub down the rubber cap of the vial with rubbing alcohol and allow it to dry completely. Then, attach the drawing tip to your syringe and insert it into your vial through the rubber stopper. Try not to get a drawing needle that is too thick, as it could damage the rubber stopper over time. In addition, insert the needle into different spots each time. The vials we make in this guide are made to last a long time, but the degradation of the rubber stopper is the main point of failure, so you need to be careful to

preserve its integrity. Pull up on the plunger to get your dose. Then, remove the drawing needle from the syringe and place the shield back on it. Uncapped needles rolling around your bedroom are less than ideal. Replace the drawing needle with your preferred injection needle.

Then, you'll want to sterilize the injection site using rubbing alcohol. You can either use an alcohol wipe or some isopropyl alcohol on a cotton pad, use what you have available. For intramuscular, find the midline of the outer thigh go down to about the middle third of the thigh. Insert the needle straight down into the muscle. Pull up on the syringe's plunger **lightly** to ensure you aren't hitting a blood vessel. If you are, the syringe will easily fill with blood. If the plunger doesn't budge, you're good. Depress the needle slowly. There are other intramuscular injection sites, but when injecting yourself, make sure you only pick a site you can see (ie, not your ass). This site allows you to have both arms available while still being easily visible.

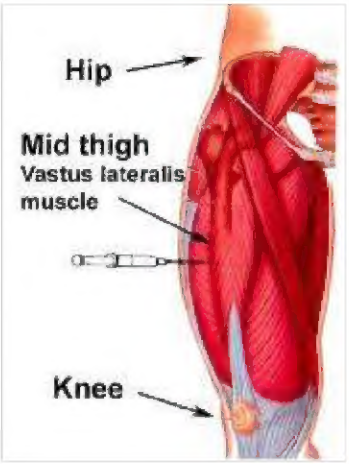

Image 10: a person's thigh is shown from the front facing perspective. A needle is being injected perpendicularly to the leg halfway between the hip and knee. The needle is going into a muscle labeled the Vastus lateralis.

For subcutaneous, I like to inject in the thigh as well, not the stomach. For both the stomach and thigh, you'll want to pinch a bunch of fat thick enough to fully insert the needle into. Insert the needle at an approximately 45-degree angle into the pinched fat and depress the needle slowly.

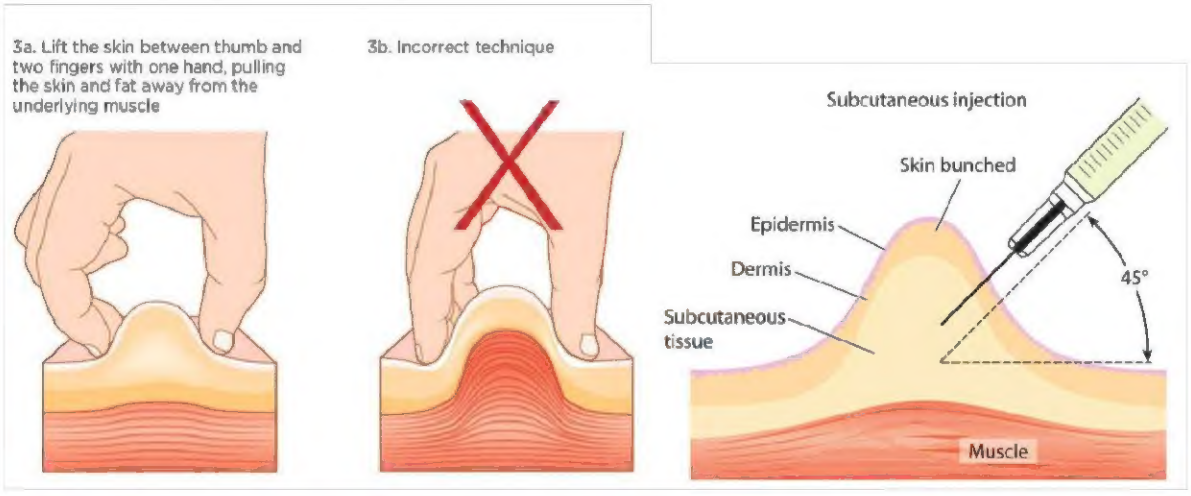

Image 11: the process for subcutaneous injection is shown. The first image shows the correct technique: the skin and underlying fat being pinched by the thumb and two fingers and lifted away from the muscle beneath. The second image shows the incorrect method, with the skin and fat being pinched alongside the underlying muscle and all three lifted up together. The third image shows the needle being injected into the bunched skin and fat at a 45-degree angle. The needle does not enter the muscle layer, saying within the subcutaneous tissue.

Once finished watch for any leaks. If you notice a small amount leaking out of the site, that's fine. Do not re-inject. If you notice a large amount pouring out, something has gone wrong. Evaluate your injection method and re-inject in a way that solves the problem. If you have larger thighs, your intramuscular

needle may not be long enough to get into the muscle, so see if you need a longer needle. If you just have a drop or two or no leakage at all, slap a bandage on it and call it a day.

The diyhrt.wiki has a longer writeup on injection methods, as well as videos. This guide is not meant to be exhaustive, so please seek out further information as needed.

Thank you for reading!

Everything within this booklet is provided for informational purposes. Nothing here constitutes medical advice. We do not recommend nor encourage breaking any local, state, or federal laws.